

Anchorage Amateur Radio Club

Meeting on February 4th

IN THIS ISSUE:

The End of CW
New Question Pool

A BABY SAVED AT CHRISTMAS TIME
SANTA'S EAR
And Much Much More

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AARC web page & Email contact addresses:

<http://kl7aa.akconnect.com>
president to kl0cy@arrrl.net
webmaster to kl7aa@lawson.akconnect.com
membership to frederickson@iname.com

News Letter Submissions, Information or corrections:

Submissions must be received 2 weeks before meeting
Email: KL0CY@arrrl.net Facsimile: 907-338-4791
Mail: 7013 Trafford Ave. Anchorage 99504

KL7G CODE PRACTICE SCHEDULE

Schedule: 7:00am, 10:00am, 4:00pm, 7:00pm, 10:00pm
AK time, every day Frequencies: 3575 kHz, 7075 kHz &
145.35 MHz: Sending Speeds: 22 wpm, 15 wpm, 7 wpm

Nets in Alaska:

The following nets are active in South-central Alaska:
Alaska Sniper's Net 3.920 MHz 6:00 PM daily
Alaska Bush Net 7.093 MHz 8:00 PM daily
Alaska Motley Net 3.933 MHz 9:00 PM daily
Alaska Pacific Emergency Preparedness Net 14.292 MHz
8:00 AM M-F
QCWA net 146.97/.37 repeater Sundays 8:00 PM local
850 No Name Net 146.85/.25 repeater Sundays 8:00 PM
Son of Sideband Net 144.20 USB Mondays 9:00 PM local
Big City Simplex Net 146.520 FM Tuesdays 8:00 PM local
ARES net 147.30/.90 MHz Thursdays at 8:00 PM local
PARKA net 147.30/.90 MHz Thursdays at 9:00 PM local

Anchorage & Mat Valley Area Repeaters

KL7AA systems at Flattop Mt., 2,200 ft
146.34/94 MHz, 80 watts, autopatch, 100/141.3 Hz PL
223.34/224.94, 25 watts, no patch, no PL
444.70/449.70, 25 watts, autopatch, 100/141.3 PL
KL7ION at Mt. Gordon Lyon 4,700 ft
147.30/90 MHz - 80 watts, no patch, no PL
KL7AA, Mt. Alyeska, 2,400 ft.
146.16/76 MHz, 25 watts, no patch, 141.3 Hz PL
KL7CC, Anchorage Hillside, SCRC club
temporary down 146.97/.37 MHz, autopatch, 103.5 Hz PL
KL7DJE at Grubstake Peak, 4,500 ft.
147.09/.69 MHz, 25 watts, no patch, 100 Hz PL
444.925/449.925, 10 watts, no patch, 141.3 Hz PL
KL7JFU, KGB road, MARA club
146.85/.25, autopatch, no PL
KL7AIR Elmendorf, EARS
146.67.07, 1072. Hz PL
KL7G West Anchorage & Events
449.65/444.65 MHz, patch, no PL

Anchorage & Mat Valley Simplex Frequencies

146.52 Mhz Calling and Emergency frequency
147.57 / 447.57 (crossband linked) HF spotters & chat
146.49 Mhz Anchorage area simplex chat
146.41 Mhz Mat Valley simplex chat

~~~ **HOT LINKS** ~~~

Internet Web links, the favorites from our readers

AARC <http://kl7aa.akconnect.com>

**New URL for SCRC Web Site**

SCRC <http://www.home.gci.net/~worchester/scrc.htm>

EARS <http://www.qsl.net/kl7air>

MARA <http://www.obarr.net/mara/>

Moose HORN ARC <http://www.alaksa.net/~kl7fg>

ARES <http://www.qsl.net/alaskaares>

KL7J <http://www.alaska.net/~buchholz>

Fairbanks AARC:

<http://ffdlm1mac.uaafsom.alaska.edu/aarc/aarc.html>

Yukon Amateur Radio Association:

<http://www.klondike.com/yara/index.html>

HAARP Project:

<http://server5550.itd.nrl.navy.mil/projects/haarp/>

<<Amateur Radio Reference Library>>

<http://www.area-ham.org/library/libindex.html>

Hamradio: <http://www.hamrad.com/>

Solar Terrestrial Activity <http://209.130.27.95/solar/>

ARRL <http://www.arrl.org/>

Propagation Report Recording 566-1819

*please let us know if there are other club pages or good starting points that should appear here*

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**ABACUS RADIO REPAIR**

Factory authorized service for: Kenwood, ICOM,

Yaesu, Alinco, Amateur radio equipment.

Call Jim Wiley, KL7CC (907) 338-0662

**ALASKA HAM RADIO SUPPLY**

Ken Weldon, AL0R proprietor

20950 Chickadee Lane in Chugiak, 688-4267

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**NEWSLETTER ARTICLES;** All articles from members and interested persons are very welcome. If you wish to submit any articles, jokes, cartoons, please have it typed or neatly handwritten. It can be submitted by computer disk, fax, or E-mail to the newsletter editor at the address listed on the cover. Submissions must be in the hands of the editor at least two weeks prior to the meeting.

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**Regular HAM Gatherings:**

\* **Tuesdays, 11:30 AM to 1:00 PM:** Join the gang for lunch and an eyeball QSO at the Royal Fork, Penland Park, East.

**Saturdays, 7:30 AM:** Here is a great way to get started on the week-end come and meet with some of the

locals and have a great breakfast at Phillips Restaurant, at the corner of Arctic and International. Great Fun.

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**This Month's Speaker**

Tom Morse, a professor at UAA will discuss the chemistry and physics of the Aurora. This is reported to be an excellent presentation. Dr. North and several of the recipients of the AARC scholarship at APU will also be introduced to the club.

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**THIS MONTH'S EVENTS**

**February 1: EARS general meeting at 7:00 PM** 1st Tuesday of the month, in the basement of Denali Hall (building 31-270) on Elmendorf AFB.. Talk in on 147.27 simplex.

**February 2: VE License Exam 6:30 PM,** 1<sup>st</sup> Wednesday of the month, Carr-Gottstein Building, APU Campus. Bring photo ID, copy of license (if any) and any certificates of completion.

**February 4: AARC general meeting at 7:00 PM** 1<sup>st</sup> Friday of the month in the Carr-Gottstein Building, on the APU Campus. Talk in will be on 147.300.

**February 8: AARC Board meeting at 7:00 PM** 2<sup>nd</sup> Tuesday of the month at Boniface Bingo

**February 11: SCRC general meeting at 7:00 PM** the 2<sup>nd</sup> Friday of the month at Denny's on Debarr & Bragaw. Talk in on 147.57 simplex.

**February XX: ARES Planning Committee 09:30 AM to 12:00 PM.** 2<sup>nd</sup> Saturday of the month. No ARES meeting this month due to activities every weekend

**February 12 & 13: Fur Rondy Grand Prix auto races.** Contact WL7CKB, Mike at 349-8191 or on 147.30/90 if you want to help with the communications

**February 12: VE License Exams at 2:00 PM.** 2<sup>nd</sup> Saturday of the month at Hope Cottage 540 W. International in the Board Room. Be sure to bring photo ID, copy of license (if any) and any certificates of completion.

**February 19: PARKA Meeting at 11:00 AM.** 3<sup>rd</sup> Saturday of the month at Peggy's, across from Merrill Field

**February 18, 19 & 20: Fur Rondy North American championship Sled Dog Races.** Contact Communications Coordinator Susan, NL7NN email: [sjw60@juno.com](mailto:sjw60@juno.com) or message at 243-5033 or pager 275-6077 or on 147.30/90 if you want to help



**February 25: MARA meeting at 7PM** the last Friday of the month at the MTA office in Palmer.

**February 26 & 27: Junior Iditarod Sled Dog Race.** Contact either Wayne, KL7HHO at 376-5604 or Richard, KL0DY at 745-5222 or email: leaddog@juno.com if you want to help

**March 4 is the Iditarod Start in downtown Anchorage and March 5 is the Restart at the New Wasilla Airport.** Contact Clyde, KL0CW email: clj@alaska.net or leave a message at 373-1436 if you want to help.

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### **An Alaskan HAM Radio Store Upgrade Special!**

Warren "Ken" Weldon, AL0R the proprietor of ALASKA HAM RADIO STORE is offering a 10% discount to all hams that bring in a CSCE dated 01/01/2000 . This will last until April 15th. Get your license or upgrade and save some money!

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### **H F Station For Sale**

One ICOM 725 HF transceiver 100W  
One desk mike SHURE model 444D  
One Kenwood Watt Meter HF  
One Butternut all band vertical antenna HF (missing one section)  
One Triband HF antenna 10M 15M 20M  
\$700. OBO Robert 376-3799 WL7SH

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### **KL7AA status update from NL7NC, John Lawson**

The KL7AA-7 packet radio bulletin board system, the JNOS internet gateway, and the club's web page server all passed Y2K in good shape. I had applied all of the software and BIOS patches that I could find to the FBB, JNOS, and OS software and computers. I monitored everything at midnight on January 1 and no hiccups occurred.

Bingo - The State granted the year 2000 multi-beneficiary gaming permit #1503 to the Boniface Bingo partnership on December 23. We're all set for this year. The gaming account balance as of January 1 is ~\$120,000. We received \$18,500 for October and \$6,250 for November. December proceeds are still to be paid. This will be the first time that the charities have ever received the correct amount of proceeds for an entire year. For the AARC, we took in a little over \$100,000 in 1999.

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This next story and the one following were to be in the Newsletter last year and by some kind of fluke I missed this getting in. My apologies to the three people involved. Edythe Lynn, KL0EO, Newsletter editor

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### **A BABY SAVED AT CHRISTMAS TIME**

as reported by *Susan Woods NL7NN, Bruce McCormick WL7YR and Nancy Richar, WL7KH*

It was late one night while Susan Woods (NL7NN) was doing ARES paper work , the radio sprang to life on 147.3(our ARES wide area repeater). It was about 1:00 AM Monday December 21, 1998. We heard a voice say, this is KL0MR, Is anyone listening, Can anyone help me. Before I could grab the mic. I heard Nancy Richar (WL7KH) in Trapper Creek ask if there was a problem. Ray Solomon KL0MR says: "I was driving from Fairbanks to Anchorage (351 miles) and my car died, a couple of hours ago and we think that the computer brain died." "How many people are with you" asked Nancy. Ray replies "there are a total of two adults and a 15 month old baby."

The weather that night was not good for being stranded on a lonely stretch of Alaska highway.. The temperature was about "0" and winds were gusting to 15 miles per hour, making the chill factor a cold 30 below. ( Exposed flesh freezes in about one minute in the wind ) Nancy asks "What is your location?" Ray says we are driving a blue Mazda and are somewhere between mile 105 and 110 on the Parks Highway in the south bound lane. Now Nancy has a problem. She lives on a homestead with her son and has no telephone. (her ham radio is her only means of communications.) Does she get her cold weather gear on and take the snow machine and sled and travel the 15 miles out to the highway and bring the people back to her place or can she raise another ham in the area with a phone. SEVERAL HAMS RESPOND TO NANCYS CALL. Ron Robson (WL7N) of Anchorage had been listening and offered to make the call to the Alaska State Troopers in Anchorage. He was told by the dispatcher, they did not have a Trooper in the Trapper Creek area at the time and it would be a while before one was available to respond. Nancy (WL7KH) says she knows of a bed and breakfast in the area and provided the phone number to Susan Woods (NL7NN). Susan reports, that the lady says her husband was out of town, and she did not want to go out alone at that time of night. She gave Susan another number of a bed and breakfast down the highway. They were not open for business. Nancy was getting worried as the car had broken down hours ago and they had no heat and the temperature was dropping. She was worried about the family. She was remembering a couple of years ago when a small boy and his grandparents froze to death after their car had broken down on the Denali Highway. Ron (WL7N) Suggested that if we could find Joe May's (AL7IK) phone number who lives in Trapper Creek, that he might be able to help. Wayne Groomer (KL7HHO) in Wasilla came on the air and said he had Joe's



number and would call him.. Wayne reported that Joe was headed out the door and would be there in about 20 minutes. Ray (KL0MR) was asked to let us know when Joe (AL7IK) got there, he said he would but his battery was getting weak. About 1:30 AM Ray called to say Joe was there and they were going to Joe's house for the night. Wayne (KL7HHO) Called Joe's wife Sandy(AL7IO) and asked to be notified when they all arrived at the house. (Rays battery had died and Joe doesn't have a 2 meter rig in the car.) It was about 2:00 AM when the three were safely at Joe's.

Later that morning, Joe's wife, Sandy (AL7IO) drove them 70 Miles into Wasilla. Another HAM, Frank Pratt (KL7FSE) of Anchorage, who heard of the ordeal, and drove up to Wasilla, picked them up and brought them the last 50 miles to Anchorage and their home.

While snuggled safe back in Anchorage later that day, Ray Says thanks to ALL OF THE HAMS AND OTHER PEOPLE WHO HELPED ALONG THE WAY, ON A COLD ALASKA NIGHT. Merry Christmas to all

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### **A "HAM" Christmas Story** *by Nancy Richar, WL7KH*

Like the Christmas babe of long ago  
With her family, a small child did go,  
Traveling far on a starlit night,  
Beneath the glow of the Northern Lights

While temperatures plummeted close to zero  
And the wind followed them from the North.  
The daily clock had spun around,  
To the wee hours of the following morn

After traveling through dark Trapper Creek town,  
Their computerized car soon broke down  
"MR" grabbed his radio and called into the gloom,  
"Is anyone monitoring....We need a room"

"KH" was there, and took the call  
With the help of others, started rolling the ball  
"NN" grabbed her landline and made several calls,  
But the hour was late, and the Inns wee all closed

WL7N, he remembered a friend,  
Came up on frequency, and said call him  
"HHO" broke in, to do the local call  
And the problem was solved by this one Ham call

AL7IK was on his way  
climbing into his four wheeled sleigh  
Off into the night, down the dark road,  
to bring the family to his humble home.

Lest you think the story ends here,  
Sit ye down and lend an ear.

For the car had died, it would not go  
so "IO" next morn, drove them half way home.

the story spread on the ham airwaves  
"FSE" grabbed his mike and had his say.  
To Wasilla town, he then drove  
He brought the family to their Anchor-town home

the small babe now rests in peace,  
nestled in her bed of lace  
Much like the babe of long ago,  
The peace and love of Christmas on her tiny face glows

Yes, The Spirit of Christmas Lives in this Great Land.  
And there is no greater proof, Than the Hearts of Her "Hams"

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Here is Nancy's winter poem for this year:

### **Santa's Ear** *By Nancy Richar, WL7KH*

99 was nearly over, the Millennium's end  
Everyone was grumbling, Mother Nature was not a friend  
Cold air had dropped in, from out of the North  
Early in the month, and would not venture forth

Thermometers plummeted, cars wouldn't start  
Woodpiles were dwindling, cabin fever was hot  
The days became weeks, with no end in sight  
The only enjoyment was bright Northern Lights

"KH" thought she was smart, she climbed on Santa's knee  
Beggin him for snow, during Christmas week  
Old Santa took pity, and kicked out the cold  
And sent in its place, a white Christmas snow

On the 19<sup>th</sup> it started, dry, fluffy and white  
And on into the next day, with no end in sight  
The 21<sup>st</sup> came, shortest day of the year  
Not so the snow, will it stop by New Years?

The snow piled up till it reached 4 foot high  
People threw up their hands, and heaved a great sigh.  
Snow machines became submarines, plowing through the snow  
Searching but never finding, a safe place to go

Santa soon knew he had made a mistake  
Called a Pineapple Express, to take over it's place  
The jet stream moved in, parked over Anchorage town  
Warm, heavy rains began pouring down

Streets became ice rinks, cars went askew  
The snow began melting, what's a person to do  
Thunder and lightning blazed out of the sky  
As the thermometers climbed, to new record highs



Ham towers and antennas danced or came down  
As hurricane winds blew through Anchor town.  
“H” learned a lesson, she now holds most dear.  
“Watch what you wish for when you hold Santa’s ear!”

My greatest apology for all that did FALL  
As I send Christmas wishes to “HAMS” one and all

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### **The End of CW** *by Robert Wilson, AL7KK*

About fifty years ago I was just out of high school and got a job as radio officer on the Steam Ship (SS) North American a passenger ship sailing on the Great Lakes. The commercial CW license that I had obtained in high school was going to pay off. Today CW is rapidly disappearing for ship board operation.

In those days we wore neat blue uniforms, just like the U.S. Navy, except our caps had a small German flag because our company owner was German and many of our passengers would be from the German parts of Wisconsin.

Our transmitters and receivers in those years were old style even for the end of World War Two. The CW transmitter was a large gray box about the size of small refrigerator with a enormous chrome plated handle in the center to change frequencies. It had all of five frequencies, I can remember that 500 Kilohertz was the most prominent, but there were several others. One frequency for the Great Lakes was 455 Kilohertz, the standard I.F. frequency for most receivers. The receiver was another gray box with RCA blazoned prominently across the front. It was a regenerative receiver, not even the most primitive type of super heterodyne such as we have today! It had five tubes and was dedicated to receiving only CW. Our back up CW receiver was a crystal set which required MCW (modulated CW) or a spark transmitter to be able to copy Morse Code. Our key was a straight key, run entirely by the operators fingers, and nothing automatic in any way. It was said that the rolling of the ship would give you a “Great Lakes Swing” to your CW. However, I could never manage to effect this alleged modification of the Morse Code.

For CW operation we had an antenna about 500 feet long which went from the Radio Shack, just aft of the smoke funnel, to the aft mast, and then to the fore mast. The insulators were about a foot long and about two inches in diameter. There was a one foot diameter ceramic bowl insulator where the antenna entered the Radio Shack, and the CW signal needed every bit of that insulator since the voltage was so high. We also had a very large knife switch that we could use to switch the antenna from the RCA transmitter over to a ground in case of lightning. We needed it often in the Great Lakes as lightning was common and often hit the ship. I

remember sparks flying off the steam radiators in the Radio Shack, and off all parts of the transmitter during one storm. So the excitement of being a CW operator on the “Lakes” had many faces.

Being a young CW operator also made me popular with the female passengers who liked to visit the Radio Shack and talk endlessly. Being an officer I also had to eat with the passengers, but wisely the Captain did not allow the young officers to have passengers right at their tables, as that was his exclusive prerogative. We young officers made up for this by escorting our female ship board staff to parties at every stop along the shores of the Great Lakes.

I remember having my ham radio on the ship and using CW. I also brought along my own chrome plated Vibroplex “speed key”, more for it’s classy style than for it’s keying quality (terrible). Later on I brought aboard a “TO” electronic keyer, the first of it’s kind, and a development of one of my high school buddies, W9TO. This advanced fully automatic keyer was really useful and made me sound like a professional shore station CW operator.

After a couple of years of Great Lakes operation I obtained a job working part time as what is now known as a soldier of fortune. Ship board communications had a lot to do with it, but we used voice entirely as only one other ham was involved in my part of the world. Still I remember using CW for ham purposes from my olive drab tent. CW allowed us to send personal messages without any question, since there were so few CW operators in these foreign countries..

I was called back to serve as Radio Officer on the SS South American on the Great Lakes in 1960. CW was almost a thing of the past by then. When we were near shore we used FM radio to make calls. This was pretty much like using a cell phone today, except we did the dialing for the passengers. We also had one of the first single side band (SSB) high frequency (HF) radios, on loan from Collins. They paid for all of the calls I wanted to make, simply to test SSB as a telephone medium. Lots of fun. But we did still have the refrigerator sized RCA Morse Code transmitter, the regenerative receiver, the old key and monster antenna. These things have passed and will no longer exist in the New Millennium..

73 de AL7KK

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Here is a web page that would be helpful for all who wish to upgrade or get into Ham radio. I've been using it now for a week and I'm ready to upgrade. Mark Kelliher, KL7TQ  
<http://www.biochem.mcw.edu/Postdocs/Simon/radio/eam.htm>  
[ml](#)

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Barry (Baz) Kirkwood, PhD, ZL1DD, posted this to



Just by chance I came upon this piece by Hiram Percy Maxim, QST, September 1928, p.24."

### OPPORTUNITY

...Is Amateur Radio what we amateurs have made it, or are we amateurs what Amateur Radio has made us?

Amateur Radio is one of the amazing products of this century. Where before has an amateur group been depended on in great public emergencies?

Where has an amateur group been depended upon for communications on every kind of exploring expedition that starts out? Where before has an amateur group been depended on by a great railroad system for its communications in time of emergency? Where before has an amateur group been depended upon to carry a message from the President of the United States to an explorer in polar regions? And where before has an amateur group led the way in an important field of scientific research?

The answer is : Nowhere. And hence the question: Is there something about Amateur Radio that carries us amateurs along with it and makes us what we are, or is it we amateurs who have made Amateur Radio the wonderful thing it has become?

I believe it is we amateurs. We built up a splendid organization which gave us the advantage of being able to work as an efficiently coordinated whole, instead of a disorderly mob. And this brought us OPPORTUNITIES which we never otherwise would have had.

And all the OPPORTUNITIES have not passed. Radio telegraphy brought broadcasting. The latter brought the talking moving picture. And then meanwhile amateur moving picture came along. They have brought that latest marvel, full natural colored amateur motion pictures. Commercial colored motion pictures will quickly come from these, and full natural colored talking moving pictures will follow it. And then will come radio television in full natural colors.

Amateurs are to have golden OPPORTUNITIES in all of them. And it leads one to wonder which of us, obscure today, are to shine with the luster of a Linbbergh tomorrow.

Let's keep everlastingly at it, fellows.

Barry (Baz) Kirkwood PhD ZL1DD ex ZL1BN, ZL4OK etc  
Signal Hill

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**From ARRL Headquarters  
Newington CT December 30, 1999  
To all radio amateurs**

ARLB096 FCC restructures: Three license classes, one code speed

The FCC has issued its long-awaited Report and Order on amateur licensing restructuring. The bottom line is that

starting April 15, 2000, there will be three license classes-- Technician, General, and Amateur Extra--and a single Morse code requirement--5 WPM.

"We believe that an individual's ability to demonstrate increased Morse code proficiency is not necessarily indicative of that individual's ability to contribute to the advancement of the radio art," the FCC said.

Besides drastically streamlining the Amateur Radio licensing process, the FCC said its actions would "eliminate unnecessary requirements that may discourage or limit individuals from becoming trained operators, technicians, and electronic experts."

Although no new Novice and Advanced licenses will be issued after the effective date of the Report and Order, the FCC does not plan to automatically upgrade any existing license privileges. The ARRL had proposed a one-time, across-the-board upgrading of current Novice and Tech Plus licensees to General class, but the FCC declined to adopt the idea. This means that current licensees will retain their current operating privileges, including access to various modes and subbands, and will be able to renew their licenses indefinitely.

Starting April 15, 2000, individuals who qualified for the Technician class license prior to March 21, 1987, will be able to upgrade to General class by providing documentary proof to a Volunteer Examiner Coordinator, paying an application fee, and completing FCC Form 605.

The FCC's decision not to automatically upgrade Novice and Tech Plus licensees means the current Novice/Tech Plus HF subbands will remain and not be "reframe" to higher class licensees as the ARRL had proposed. The FCC said it did not reframe these subbands because there was "no consensus" within the amateur community as to what to do with them.

The FCC decided to lump Technician and Tech Plus licensees into a single licensee database, all designated as "Technician" licensees. Those who can document having passed the 5 WPM Morse code examination will continue to have the current Tech Plus HF privileges. The FCC said it may request documentation from a licensee or VEC to verify whether a licensee has passed a telegraphy examination.

The FCC action also authorizes Advanced Class hams to prepare and administer General class examinations, and eliminates Radio Amateur Civil Emergency Service (RACES) station licenses. RACES will remain, however.

Under the new licensing scheme, there will be four examination elements. Element 1 will be the 5 WPM Morse code exam. Element 2 will be a 35-question Technician exam; Element 3 will be a 35-question General exam; and Element 4 will be a 50-question Amateur Extra exam. The FCC has left it in the hands of the National Conference of VECs Question



Pool Committee to determine the specific mix and makeup of written examination questions.

Elimination of the 13 and 20 WPM Morse requirements means an end to physician certification waivers for applicants claiming an inability to pass the Morse code examination due to physical handicap.

The FCC disagreed with the League's suggestion that it undertake a restructuring of operating privileges along with licensing restructuring. The Commission said it wanted to give the amateur community a chance to "reach a consensus" regarding new technologies before it tried to restructure amateur operating privileges and frequencies.

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**Sent: Monday, January 17, 2000 6:29 PM**  
**Subject: [PR:561] Re: New Question Pool**

The release of the new question pool scheduled for February is an excellent opportunity to generate publicity for amateur radio in your local newspaper.

Find a local official to quote (ARRL Section manager, ARES official, Emergency Service coordinator, or prominent local ham, etc., and ask that person for a short sound-bite-like description of the new rules (i.e. . . . for example . . . the biggest change in Amateur Radio in 50 years . . . etc.). Let's rope Jennifer and HQ into obtaining for us quotes from ARRL President, and possibly even a quote from HAM-friendly Congressperson, and perhaps even from an FCC spokesperson ((one good national quote is all that's needed -- and it will give breadth and depth to your release)).

Then spell out what the pool is, when the FCC will release new questions, explain how the license categories have been simplified and how the FCC has reduced the code requirement, etc. Sprinkle in another quote or two from local hams.

(When you use a quote from a local person, write his/her name followed by "amateur radio operator <call of town>". Editors might choose not to print the call letters, but if presented in this manner they're more likely to print it than if you wrote "...John Doe, W12ABC....")

Time your release to be arriving at the editor's desk between January 20-25 and call the editor's attention to the fact that the "newspeg" is going to occur in February (that is the release of the question pool). You should also mention the April 15th effective date for the changes.

These are just a few thoughts from a journalist. But this is based on the belief that a "newspeg" is a horrible thing to waste!

You have about a week to get your release written. Ladies and Gentlemen, start your word processors!

Alan Kaul W6RCL

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#### **Current HAM License Counts** from Davis Stevens KL7EB

| CLASS     | USA    | Alaska | Anchorage | Fairbanks |
|-----------|--------|--------|-----------|-----------|
| All       | 752480 | 3390   | 871       | 583       |
| Extra     | 77469  | 353    | 104       | 53        |
| Advanced  | 132114 | 483    | 148       | 78        |
| General   | 123195 | 573    | 160       | 63        |
| Tech Plus | 144252 | 579    | 149       | 105       |
| Tech      | 203552 | 1088   | 244       | 231       |
| Novice    | 71898  | 271    | 38        | 44        |

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#### **QUESTIONS, COMMENTS, CONFUSION FOLLOW IN FCC's WAKE** **The ARRL Letter January 7, 2000**

Questions, comments, and some confusion have been the order of the day since the FCC finally dropped the other shoe on Amateur Radio restructuring on December 30. The FCC's momentous action--reducing the number of license classes to three and establishing 5 WPM as the sole Morse code examination element--has, at least for now, polarized the Amateur Radio community. It also promises to change the complexion of Amateur Radio as it enters the new millennium.

More than half of those responding to an informal poll on the ARRL Web site indicate they plan to upgrade during 2000. Demand for study materials in the past week suggests many amateurs will be hitting the books in the coming weeks.

After April 15, 2000, the FCC will only issue Technician, General, and Amateur Extra class licenses. Novice and Advanced licensees will retain current operating privileges and may renew indefinitely. The FCC's new licensing scheme simplifies and shortens the upgrade path from the ground floor through Amateur Extra. Applicants will only have to pass one Morse code test, and there are fewer written examinations and total questions.

"This is the best news I have heard since bread and butter!" exclaimed Jimmy Stewart, WD9FHY, who said he's been trying unsuccessfully for years to boost his code proficiency. On the other side were some who asserted that the revised requirements would contribute to a further decline of Amateur Radio and open the doors to "riff-raff."



The ARRL Board of Directors is expected to review the FCC Report and Order and discuss its implications when it meets January 21-22 in Memphis. In a significant step, the FCC has left it in the hands of the National Conference of VECs Question Pool Committee to determine the specific mix and makeup of written examination questions. Current Amateur Radio study materials remain valid at least until the new rules become effective in April.

The nation's Volunteer Examiner Coordinators, including the ARRL-VEC, now are under the gun to meet the plan's April 15 implementation date. "The Question Pool Committee has been meeting by telephone and e-mail to get the updating process under way," said ARRL-VEC Manager Bart Jahnke, W9JJ. "It's anticipated that the QPC will put out a news release soon that indicates when the updated question pools will be available to the public." Jahnke said the revised question pools will be out "well in advance" of April 15.

No one loses any privileges under the FCC's new plan, and, with one limited exception, no licensee is in a position to automatically gain any privileges when April 15 rolls around. The FCC's action establishes the Technician license--with or without Morse code credit--as the entry-level ticket to Amateur Radio. Technician applicants passing the 5 WPM Morse code exam will gain current Tech Plus HF privileges. The current "no-code" Tech license will continue to be available. Technician applicants opting to not take the code test will gain current Technician VHF/UHF privileges. After April 15, 2000, the FCC will lump Technician and Technician Plus licensees into a single "Technician" database. Despite the name change, current Tech Plus licensees won't lose any privileges.

Similarly, current General and Amateur Extra class holders will continue to enjoy their current privileges. The FCC took no action to reallocate any amateur bands.

The new licensing regime has four examination elements: Element 1, the 5 WPM Morse code test; Element 2, a 35-question Technician test; Element 3, a 35-question General test, and Element 4, a 50-question Amateur Extra test. The new Amateur Extra test is expected to combine the important elements of the current Advanced and Amateur Extra examinations. Only minor changes are anticipated in the new General class examination. The new Technician exam likely will include some questions on HF operating from the current Novice test.

The new licensing plan created a lone and limited upgrade for those who held a Technician license or a Certificate of Successful Completion of Examination (CSCE) before March 21, 1987. Those individuals may claim credit for a new General class license. This is because there was a single Technician-General written test under the old system; only the code tests differed. The upgrade is not automatic, however.

Affected individuals will have to apply through a Volunteer Examiner test session, complete Form 605, attach documentary proof of having completed the requirements for a Technician license prior to March 21, 1987, and pay an application fee, if any, to the VEC.

Judging from the questions coming into ARRL HQ, many hams want to know whether to upgrade now or wait for the new system. If you're either a Tech Plus or an Advanced licensee, there might be an advantage to taking an exam now. The FCC has told the League that current Tech Plus licensees holding a valid CSCE for Element 3B may apply for a General class upgrade when the new rules become effective. Likewise, current Advanced licensees holding a valid CSCE for Element 4B may apply for an Amateur Extra class upgrade under the new system. To be valid on April 15, 2000, any such CSCE will have to be dated on or after April 17, 1999. A CSCE is only good for 365 days. CSCE holders must attend a Volunteer Examiner session, complete Form 605, attach a valid CSCE, and pay any required application fee (\$6.65 for the ARRL-VEC).

The reduced Morse code requirement hit a nerve with some hams who felt it "devalued" their upper-class licenses. Others, however, felt it minimized an unnecessary obstacle. The FCC said it believes a demonstration of Morse proficiency does not necessarily indicate an individual's "ability to contribute to the advancement of the radio art," as the FCC put it. The Commission also said it was not convinced that Morse proficiency had any particular value to emergency preparedness.

The reduction in the Morse code requirement was not entirely unexpected. Several other countries already have lowered their Morse code examination requirements, and some observers believe the Morse requirement will disappear altogether once it's eliminated in the international Radio Regulations. The FCC said it opted for the "least burdensome requirement" as its sole Morse standard. While the 13 and 20 WPM code tests soon will be history, the FCC said that "provisions must remain in place for accommodating individuals with severe disabilities."

The Morse code issue is expected to be on the agenda of a future World Radiocommunication Conference. The FCC said it would not automatically "sunset" the Morse code requirement even if Morse code is eliminated from the international radio regulations.

Frequently Asked Questions on restructuring are available at <http://www.arrl.org/news/restructuring/faq.html/>.

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## **ENHANCED AMATEUR ENFORCEMENT ENTERS A NEW YEAR**

**The ARRL Letter January 7, 2000**



As the new year gets under way, FCC Special Counsel for Amateur Radio Enforcement Riley Hollingsworth hinted he might have to break bad on hard-core offenders this year. He explained that poor or lax FCC enforcement in the past led him to be more forgiving of rule breakers during his first full calendar year in the enforcement chair. Now, those who persist in operating outside of the stated basis and purpose of Amateur Radio "are beginning to try our patience," he said. "I can't say we're going to be as compassionate this year."

Hollingsworth said he expected to continue his focus on incursions into the 10-meter band by unlicensed operators, especially as propagation gets better, and on equipment certification issues. "We're very concerned about the illegal equipment we see for sale at hamfests," he explained.

Overall, however, malicious interference remains "the basic problem," as he put it. "We're going to use the High-Frequency Direction Finding Center at Laurel [Maryland] more this year" to track down rule breakers, he said. In addition, Hollingsworth now has enhanced monitoring tools at his Gettysburg office, allowing him access to the HFDF Center's 14 antenna fields plus VHF-UHF "pods" that can be moved around as necessary. "We have dial-in capabilities to all of our antenna fields and to the pods, so we can cover HF, UHF, and VHF anywhere in the country, right here from the Gettysburg office," he explained.

"It's a force multiplier, so to speak," Hollingsworth said of the new capabilities.

Hollingsworth also says he's upbeat about the future of ham radio and the FCC's Amateur Radio restructuring plan announced December 30. "I'm really optimistic about it," he said this week. "I think that it's a good idea to simplify things a little bit as far as the number of license classes," he added, referring to the new three-tiered system.

Hollingsworth said he believes Amateur Radio needs more young blood to keep it going in the future, and he thinks the new licensing system that becomes effective April 15 might help in that regard. He declined, however, to comment further on the specific policies and rules the FCC's Wireless Telecommunications Bureau laid down in its Report and Order, saying it would not be appropriate.

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Hams in the Owensboro, Kentucky, area activated the afternoon of January 3 when an F3-level tornado visited town. ARRL Official Relay Station and former Kentucky Section Manager Steve Morgan, W4NHO, says the storm—with winds of approximately 180 MPH—struck Owensboro from the southwest, making a wide swath and hopping its way through the southwest portion of the city. Owensboro is home to past ARRL President George Wilson III, W4OYL. The

tornado touched down about three miles from Wilson's house, and he was involved in assisting in the response.

"Owensboro is a mess!" reports Bill Hilyerd, K4LRX, in Henderson in a message to Kentucky SEC Ron Dodson, KA4MAP. "We boys in Western Kentucky are quite busy."

Morgan reports that Amateur Radio operators opened an ARES net on the Owensboro Amateur Radio Club's 2-meter repeater and provided storm tracking information for the next hour or so. Operators were dispatched to the local emergency management office, the Red Cross office, the Kentucky Third District EMS office, the local hospital, and a shelter at a local sports center.

In addition to assisting with EMA/EOC communications, hams also have been involved in post-storm damage assessment. Dodson says additional hams still are needed during daylight hours to assist damage assessment teams. (Area hams may contact Steve Morgan, W4NHO, 270-926-4451 or Bob Spears, AA4RL, 270-926-1693.)

Morgan reports that telephone service—including cellular—was disrupted because of heavy use within the community. "Amateur radio provided valuable links when other services were disrupted," Morgan said.

Amateurs also got in touch with TV stations in Evansville, Indiana, as well as the Evansville Red Cross chapter through hams in that city. Morgan says early notification of the storm's approach via local TV stations and the emergency sirens prevented loss of life during the storm. Although 15 people were injured, only one injury was considered serious, he said.

Morgan says that by week's end, some 8000 residents of the Owensboro area were still without power. Property damage was estimated to be in the millions of dollars. At least 130 homes were destroyed, and 500 to 600 homes suffered major damage. "The community has really pulled together, and repairs are rapidly progressing," he said. "It's impossible to give a blow-by-blow description of all the hams who played a valuable part during this storm."

While the OARC 147.21 MHz repeater managed to stay on the air, Dodson cited reports indicating the repeater was operating at reduced power after apparently suffering some lightning damage. The machine was run off battery power for a while, but Jack Wilson, K4SAC, in Owensboro told Dodson the repeater now is back on commercial power. "We have had a net in session officially or unofficially since Monday afternoon," he said. Two other 2-meter machines were said to have been lost in the tornado.

Overall, more than 40 Owensboro amateurs participated in the tornado response effort, Morgan said.—Steve Morgan, W4NHO; Ron Dodson, KA4MAP



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## FCC SEEKS CLUB, MILITARY REC CALL SIGN ADMINISTRATORS

The ARRL Letter January 7, 2000

Starting March 1, 2000, the FCC will accept requests from organizations interested in processing applications for Amateur Radio club and military recreation station call signs. Requests received before this date will not be considered, the FCC said. "We will accept the services of any organization meeting the requirements of Section 4(g)(3)(B) of the Communications Act," the FCC Public Notice explained. "Organizations interested in processing applications for amateur service club and military recreation station call signs should familiarize themselves with the Report and Order and the requirements of the statute."

The FCC adopted an R&O October 21, 1998, that re-established the use of volunteer organizations to process applications for Amateur Radio club and military rec station call signs.

The FCC says an organization requesting designation as a "Club Station Call Sign Administrator" must be able to show that (1) it is an Amateur Radio organization; (2) that it has tax-exempt status under Section 501(c)(3) of the Internal Revenue Code of 1986; (3) that it will provide voluntary, uncompensated and unreimbursed services for processing applications for club and military rec station call signs; (4) that it will submit the information to the FCC in an electronic batch file; and (5) that it will retain the application information for at least 15 months and make it available to the FCC upon request.

"The Club Station Call Sign Administrator may collect all necessary information in any manner of its choosing, including creating its own forms," the FCC Public Notice said.

Requests must be signed by a responsible official of the organization and include the telephone number of a person familiar with the request. Interested organizations must file their request with the FCC, Wireless Telecommunications Bureau, Public Safety and Private Wireless Division, 445 Twelfth St SW, Room 4-C330, Washington, DC 20554, ATTENTION: CLUB STATION CALL SIGN ADMINISTRATOR. Failure to follow these filing procedures will result in the request being returned without consideration.

Qualified organizations that successfully complete a pilot autogrant batch filing project will be authorized as Club Station Call Sign Administrators to process applications and submit the information to the FCC in an electronic batch file. The FCC will announce names and addresses of Club Station Call Sign Administrators once they have been selected.

For more information, contact William T. Cross, 202-418-0680.—FCC Public Notice

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## SB SPCL ARL ARLX001

ARLX001 Hedy Lamarr, actress and inventor, SK.

Hedy Lamarr, the sultry, sexy screen star of the 1930s and 1940s who also conceived the frequency-hopping technique now known as spread spectrum, has died. Lamarr was found dead in her suburban Orlando, Florida, home January 19. She was believed to be 86.

Born Hedwig Kiesler in Austria, Lamarr came to the US in 1937 after being signed by MGM. Among her most successful films was the 1949, directed Cecil B. DeMille classic, Samson and Delilah.

In her 1992 book *Feminine Ingenuity*, Lamarr described how she came up with the idea of a signaling device for radio-controlled torpedoes that would minimize the danger of detection or jamming by randomly shifting the frequency. She and composer George Antheil developed the concept and received a patent for it in 1942.

The concept was not developed during World War II, but when the patent expired, Sylvania put the idea to use in satellites. Spread spectrum also has found applications in wireless telephones, military radios, wireless computer links, and Amateur Radio experimentation.

A more-detailed version of Lamarr's role in spread spectrum is described in the IEEE book *Spread Spectrum Communications*, published in 1983.

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## Power Supplies and Batteries

Phil Atchley wrote:

Hello All....

I posted this question to this list as I found no list dedicated > to power supplies, chargers and emergency power.

What I have here are 4 deep cycle batteries in parallel (about 440 A/hrs) to run the 12 volt equipment. Even have run Field day class E with it. These are kept on constant "float Charge" at 13.75 VDC by a home brew Voltage regulated current limited (6 Amps) charger 24 hrs a day. Has worked very well for a couple years now.

I am intending to get a new (for me) TS-850 Transceiver, definitely moves me out of the QRP class, and I anticipate needing a heavier duty charger. I don't feel like acquiring the parts to home brew again and am considering a "commercial"



power supply on the order of 25 to 30 amps continuous, 13.75 volts.

I would like to use the same "float charging" arrangement, connecting the power supply across the battery bank (through the existing heavy duty fuse block) and then run the equipment off the combined "power, but want to avoid switching relays etc.

Will Astron, Tripp-Lite or other power supplies work in this set-up. What about if the AC power fails, will they take the "back-voltage" without self destructing. What have others done to accomplish this. I cannot afford to make the expensive mistake of blowing up a commercial power supply.

Incidentally, when I worked in a local (now defunct) CB shop we had a 65 Amp continuous switching supply that was designed to either float charge or parallel supplies for additional current. Can't recall the brand, it was a wall mount unit with no power switch etc., designed for "commercial duty". It was a very nice unit.

73 de Phil KO6BB

If it's more than 1dB above the Noise Floor "IT AIN'T DX"!

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Hi Phil,

I have developed a modification to the very popular Astron RS and RM series of linear supplies that has been successful in float charging gel type batteries, both in our emergency communications van and at several repeater sites. I have not worked (yet) with liquid filled batteries except for some very poor experience with deep cycle marine batteries. Along the way, I have probably learned more than I ever wanted to know about gel type batteries.

First, get good quality batteries designed for float service. I use batteries designed for solar power systems. Sealed batteries eliminate all of the gassing and spillage safety problems. Their construction is quite different than starting batteries with their emphasis on high starting current, fractional discharge and low cost. Deep cycle marine batteries are a bit better but their quality varies widely, both by brand and even among batteries from the same manufacturer and production lot. Paralleling mismatched batteries results in either boil off and overcharge damage on the low voltage units or undercharge on the high voltage ones.

One problem with damaged batteries is that the damage is hard to detect unless their capacity is checked. They can look great until crunch time comes and then quit after delivering only 10 to 20 percent of their rated capacity. Batteries are usually specified at a 20 hour discharge rate to an end point of 10.5V for a 12V battery. I usually test to 11V end point because a lot of gear quits there. This should give 90 percent

of rated storage. Capacity drops when the battery is cold but recovers when it warms up again. Second, the charging voltage needs to be temperature compensated unless the batteries are in an air conditioned space. The manufacturer of the batteries I use provides temperature curves and has stated that the float life of the batteries will be cut in half by deviations of only 50 millivolts (!!) from the target value. The ideal value varies a lot, from 13.3V at 110 deg. F to 14.45V at 0 deg. F for example. The proper voltage is only 13.8V at 68 deg. F.

Finally, the power supply must be current limited to a value that doesn't exceed either the maximum charging rate for the batteries or the maximum CONTINUOUS rating of the supply. Remember that the nameplate rating assumes excellent ventilation so the rating must be reduced further in many real installations. Most batteries can be safely charged at up to an 8 hour rate, that is, 50 amps for a 400AH capacity. This rate on a 50AH gel battery would be destructive. The nice part of a floating battery is that the supply only has to make up the average power drawn so a 20A or even a 12A unit would be plenty. The "pile up peaks" are from the battery.

Most of my work has been with the Astron RS series of linear power supplies. These are rugged, high quality units that share nearly the same control PC board for ratings from 7A to 50A. Temperature compensation requires only the addition of one fixed resistor and one thermistor. The thermistor is on a cord and is taped to the battery case.

These supplies have a fold back current limiter which protects them against shorts but it is non-adjustable and set too high for charge limiting. I have added an outboard limit circuit which gives an accurate constant current limit in the 9 to 14V range for charging but leaves the original circuit active for fault conditions.

These supplies already have good protection against being back fed by the battery when the input power is off. They also have an SCR over voltage "crowbar" circuit to protect the load in case the regulator fails. An output fuse must be added to disconnect the supply from the battery if this circuit ever triggers. Diode isolation wastes a lot of power and can, with radios that need at least 11.0V to operate, make almost half of your battery capacity useless.

These techniques do work. We have a solar powered repeater on an offshore island that gets quite a bit of use. The batteries get cycled every day and yet, after over 7 years with no maintenance (no one has even visited the site), they still have most of their original capacity. The original marine batteries failed in less than two years. An article and possibly a kit are in the works.

Bruce Gordon N6OLT  
Santa Barbara, CA

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## The Anchorage Amateur Radio Club News

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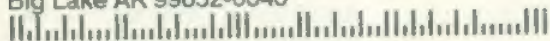
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### DMAT Communications Opportunity

Robert Kelley, WL7EN

This message is a request for Amateur Radio Operators to assist with the communication section of the Alaska-1 Disaster Medical Assistance Team. I have been working with them for about a year as the only Amateur Radio Operator. There is need for several people with radio experience to maintain and setup the radios during deployments. If you are interested please email me with your name and phone number or just come to the meeting. The team currently meets in the BLM warehouse located on Campbell Tract the second Monday of the month. This is a great opportunity for any Amateur Radio Operator interested in Emergency Services. Time spent on deployments is paid and transportation to the deployed assignment is furnished by the Federal Government.

I have been in contact with the person located in Washington, D.C. who is in charge of communications for all the teams. He is willing to come to Alaska to speak at any of the Clubs monthly meetings to talk about the Disaster Medical Assistance Teams and how the communications section fits in. Let me know and we can arrange for his visit.

If I may request, would someone that is also a member of the other area clubs forward this message to the reflector for their appropriate club.

Below is a link to the Dayton Ohio's Disaster Medical Assistance Team's web page. It will give you an idea of what this team is all about.

TNX and 73,  
Robert Kelley, WL7EN